

Claim Amendments

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Claims 1-4 (cancelled).

Claim 5 (previously presented): A method for producing a printing process adaptation with which color values of a first printing process are converted into color values of a second printing process so that black build-up of the first printing process being substantially transferred into the second printing process and visual impressions of printed colors in the first and second printing processes being substantially identical, which comprises the steps of:

performing a first printing process adaptation without maintaining the black build-up for transforming all the color values of the first printing process into transformed color values of the second printing process;

performing a second printing process adaptation while maintaining the black build-up for transforming all the color

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values of the first printing process into further transformed color values of the second printing process;

performing a third printing process adaptation for transforming all the color values of the first printing process into additional transformed color values of the second printing process by performing a weighted averaging of the transformed color values of the first printing process adaptation and of the further transformed color values of the second printing process adaptation;

carrying out the weighted averaging with a weighting function $f(C1, M1, Y1)$ derived from a proportion of chromatic printing inks CMY in colors of the first printing process;

using a function $s(C1, M1, Y1)$ for forming the weighting function $f(C1, M1, Y1)$, which is limited to a value range between 0 and 1, the function $s(C1, M1, Y1)$ being a measure of an entire proportion of the chromatic printing inks CMY in a color of the first printing process; and

defining the function $s(C1, M1, Y1)$ by $s(C1, M1, Y1) = C1 \times C1 + M1 \times M1 + Y1 \times Y1$.

Claim 6 (previously presented): A method for producing a printing process adaptation with which color values of a first printing process are converted into color values of a second printing process so that black build-up of the first printing process being substantially transferred into the second printing process and visual impressions of printed colors in the first and second printing processes being substantially identical, which comprises the steps of:

performing a first printing process adaptation without maintaining the black build-up for transforming all the color values of the first printing process into transformed color values of the second printing process;

performing a second printing process adaptation while maintaining the black build-up for transforming all the color values of the first printing process into further transformed color values of the second printing process;

performing a third printing process adaptation for transforming all the color values of the first printing process into additional transformed color values of the second printing process by performing a weighted averaging of the transformed color values of the first printing process

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adaptation and of the further transformed color values of the second printing process adaptation;

carrying out the weighted averaging with a weighting function $f(C1, M1, Y1)$ derived from a proportion of chromatic printing inks CMY in colors of the first printing process;

using a function $s(C1, M1, Y1)$ for forming the weighting function $f(C1, M1, Y1)$, which is limited to a value range between 0 and 1, the function $s(C1, M1, Y1)$ being a measure of an entire proportion of the chromatic printing inks CMY in a color of the first printing process; and

defining the weighting function $f(C1, M1, Y1)$ by
$$f(C1, M1, Y1) = \min\{s(C1, M1, Y1) / (T \times s_{\max}); 1\},$$
 where s_{\max} is the maximum value of the function $s(C1, M1, Y1).$

Claim 7 (previously presented): The method according to claim 6, which further comprises:

using a limiting factor T for determining at which chromatic color proportion $s(C1, M1, Y1)$ solely the first printing process adaptation is used as the third printing process adaptation.

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Claim 8 (previously presented): The method according to claim 7, which further comprises:

determining a value of $T=0.2$ as a limiting factor.